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Offensive Disclosure: How Voluntary Disclosure Can *Increase* Returns from Insider Trading

M. TODD HENDERSON,* ALAN D. JAGOLINZER,** & KARL A. MULLER, III***

Can voluntary disclosure be used to enhance insiders' insider-trading profits while providing legal cover? We investigate this question in the context of Rule 10b5-1 trading plans. Prior literature suggests that insiders reduce opportunities to profit from trades if their planned trades are disclosed. But disclosure might increase such opportunities because of an unappreciated characteristic of how rules of judicial procedure interact with SEC trading rules. Courts can only consider publicly available evidence from defendants at the motion-to-dismiss phase of litigation, and this practice can enhance legal protection for firms that disclose planned trades, especially those disclosing detailed information. This suggests that voluntary disclosure, which is conventionally thought to reduce information asymmetries, can create legal cover for opportunistic insider trading.

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INTRODUCTION

Ever since Louis Brandeis wrote “[s]unlight is said to be the best of disinfectants,”¹ disclosure has been assumed to be a mechanism for reducing information asymmetries and thereby decreasing the potential for opportunism. Insider-trading regulation is a prime example: rules require executives to disclose material informational advantages or abstain from trading.²

The finance and accounting literatures assume corporate insiders do not have incentives to disclose pending trades in advance of trading in their own firm’s stock. Advance disclosure reveals insiders’ private information about the ex-

1. LOUIS D. BRANDEIS, *OTHER PEOPLE’S MONEY AND HOW THE BANKERS USE IT* 92 (1914).

2. For example, the SEC’s rule for insider trading is known as “disclose or abstain,” suggesting that disclosure is a remedy for informational asymmetries. *See* Cady, Roberts & Co., Exchange Act Release No. 6668, 40 S.E.C. 907, 914 (1961) (“Consequently, any sales by the insider must await disclosure of the information.”).

pected value of the stock price, and this can cause investor front running—that is, selling before insiders in anticipation of their sales.³ This has the potential effect of lowering share prices before insiders' sales execute.⁴

But this theory does not fully consider how legal rules can shape disclosure incentives. Insiders make trading decisions based not just on economics but in the shadow of the law, where both procedural and substantive rules can significantly alter insiders' disclosure incentives. For instance, voluntary disclosure not only provides information to potential counterparties but, given the process dictated by the Federal Rules of Civil Procedure, also provides incremental litigation-risk reduction. This is because only publicly available documents—that is, ones disclosed prior to suit—can be used to dismiss shareholder suits alleging insider trading before those suits become extremely costly to settle. We show that this litigation-risk reduction arising from disclosure of insiders' trading plans creates opportunities for insiders to enhance their profits from insider trading. In other words, once we consider how law influences decision-making, we can see that disclosure, which is thought of as a way to reduce opportunism, can be used perversely to increase it.

We use a recent rule change regarding the legal effect of insiders' commitments to trade in the future as a mechanism to test the impact of voluntarily disclosed trading plans on insiders' strategic trading potential. The SEC promulgated Rule 10b5-1 in October 2000 to better allow insiders to diversify firm-specific holdings by providing an affirmative legal defense for trades that are prearranged at a time when insiders attest they do not possess material, nonpublic information.⁵ Trades can happen when insiders have material nonpublic information, so long as they planned the trades when they did not.

Importantly for our research design, the SEC does not mandate disclosure of information regarding insiders' 10b5-1 use,⁶ which gives rise to considerable variation in whether and what information firms voluntarily disclose about their insiders' 10b5-1 trading plans. As discussed in detail below, the affirmative defense protection provided by the rule is most valuable if trading plans are publicly disclosed, especially when disclosures provide specific details.⁷ We

3. See, e.g., Anat R. Admati & Paul Pfleiderer, *Sunshine Trading and Financial Market Equilibrium*, 4 REV. FIN. STUD. 443, 443 (1991); Mozaffar Khan & Hai Lu, *Do Short Sellers Front-Run Insider Sales?*, 88 ACCT. REV. 1743, 1743 (2013).

4. There are typically more insider sales than purchases on the open market, particularly within Rule 10b5-1. See, e.g., Alan D. Jagolinzer, *SEC Rule 10b5-1 and Insiders' Strategic Trade*, 55 MGMT. SCI. 224, 228 (2009); Leslie A. Jeng et al., *Estimating the Returns to Insider Trading: A Performance-Evaluation Perspective*, 85 REV. ECON. & STAT. 453, 457 (2003).

5. See Selective Disclosure and Insider Trading, Securities Act Release No. 33-7881, Exchange Act Release No. 34-43154, Investment Company Act Release No. 24599, 65 Fed. Reg. 51,716 (Aug. 24, 2000) (codified at 17 C.F.R. pt. 240, 243, 249). For a detailed discussion of the regulatory development of Rule 10b5-1, see Jagolinzer, *supra* note 4, at 225–26, and Stanley Veliotis, *Rule 10b5-1 Trading Plans and Insiders' Incentive to Misrepresent*, 47 AM. BUS. L.J. 313 (2010).

6. Form 8-K Disclosure of Certain Management Transactions, Securities Act Release No. 33-8090, Exchange Act Release No. 34-45742, 67 Fed. Reg. 19,914 (proposed Apr. 23, 2002).

7. See *infra* note 39 and accompanying text.

examine whether this incremental legal protection arising from disclosure creates greater opportunities for insiders to trade strategically. In other words, we examine whether the rule, as interpreted by the SEC and used by firm insiders, comports with the SEC's stated purpose of reducing opportunities for insiders to profit from material, nonpublic information. We find evidence that it does not. In fact, we find that the rule has had the opposite effect of increasing opportunities for insider trading.

Our tests investigate insiders' trade-and-return patterns, which courts typically consider at the motion-to-dismiss stage of trial to evaluate claims of scienter.⁸ We find evidence that the number of sale transactions by participants increases dramatically after the disclosure of Rule 10b5-1 plan participation, and increases with the specificity of disclosure. In contrast, we do not find evidence of elevated sale transactions by insiders who trade outside of 10b5-1 plans (hereinafter, nonparticipants). This evidence suggests that participants view disclosure of 10b5-1 plans, especially disclosure of specific plan information, as providing significant legal benefits. Insiders trade more freely in these plans in ways that might otherwise give rise to greater legal liability if the trades were made outside of these plans.

Using abnormal return patterns (that is, insider-trading profits) as another benchmark regarding informed trading behavior, we find that the returns following insiders' sales in 10b5-1 trading plans that are voluntarily disclosed are more negative relative to the returns following insiders' sales for those inferred to be trading within, but not disclosing, 10b5-1 plans. This means that insiders who use and disclose 10b5-1 plans seem to time their sales ahead of drops in stock prices in ways that insiders who use the plans but do not disclose do not, and in ways that are not likely explained by chance or any explanation other than their knowledge and use of material nonpublic information.

In addition, we find evidence that insiders' sales generate the largest abnormal returns when specific plan details are voluntarily disclosed. This suggests greater disclosure occurs when there is greater certainty about pending negative performance. We call this strategy "hiding in plain sight," since insiders appear to use disclosure as a mechanism for reducing the legal risk of actions that might otherwise attract legal scrutiny. The more outsiders know about insiders' trading plans, the greater the expected returns to insiders. This counterintuitive finding might arise directly from courts providing affirmative defense protection in motion-to-dismiss proceedings only to those plans that are publicly disclosed. For this reason, disclosure enhances the probability of early case dismissal, which can therefore provide greater protection for insider trades.

Taken together, our findings provide important new insights regarding firms' decisions to voluntarily disclose information to the public. There is little prior

8. For a discussion of the cases on point, see *infra* note 41.

research that directly investigates the link between voluntary disclosure and insider trading, which is surprising given the potential legal consequences.⁹ There is some evidence that managers provide higher-quality financial disclosures prior to selling shares to reduce firm litigation risk;¹⁰ however, these studies do not speak to whether litigation-reducing disclosure can actually enhance an insiders' strategic trading advantage. Our study provides evidence that it can.

The rest of this Article proceeds as follows. Part I provides background information regarding Rule 10b5-1 and outlines expectations regarding disclosure-choice determinants and implications. Part II outlines sample-selection procedures, while Part III presents the empirical tests and results. We offer some potential reforms in Part IV, including a radical but common sense proposal to completely randomize trades by insiders. Part V concludes.

I. INSIDER TRADING AND DISCLOSURE RULES

In this Part, we describe the basics of Rule 10b5-1, including the legal requirements and practical considerations for use of the rule, its use by firms and insiders to create opportunities for trading that are defensible in court, and how the evidentiary rules for motion-to-dismiss hearings and the economic incentives created by securities class actions influence how the rule is exploited in practice.

A. INSIDER TRADING BACKGROUND

There is no federal statute that specifically forbids trading by insiders based on information not known to those whom they trade against. The legality of insider trades is based on a vague statute, rules and interpretations of the SEC, and a body of case law interpreting them. Section 10(b) of the Securities Exchange Act of 1934 is the wellspring of this body of law: "It shall be unlawful for any person . . . [t]o use or employ, in connection with the purchase

9. There is a well-developed literature that examines why firms voluntarily disclose financial or firm-performance information and its association with litigation risk. *See, e.g.*, Stephen P. Baginski et al., *The Effect of Legal Environment on Voluntary Disclosure: Evidence from Management Earnings Forecasts Issued in U.S. and Canadian Markets*, 77 ACCT. REV. 25 (2002); Laura Field et al., *Does Disclosure Deter or Trigger Litigation?*, 39 J. ACCT. & ECON. 487 (2005); Jennifer Francis et al., *Shareholder Litigation and Corporate Disclosures*, 32 J. ACCT. RES. 137 (1994); Ron Kasznik & Baruch Lev, *To Warn or Not to Warn: Management Disclosures in the Face of an Earnings Surprise*, 70 ACCT. REV. 113 (1995); Jonathan L. Rogers, *Disclosure Quality and Management Trading Incentives*, 46 J. ACCT. RES. 1265 (2008); Jonathan L. Rogers & Andrew Van Buskirk, *Shareholder Litigation and Changes in Disclosure Behavior*, 47 J. ACCT. & ECON. 136 (2009); Douglas J. Skinner, *Earnings Disclosures and Stockholder Lawsuits*, 23 J. ACCT. & ECON. 249 (1997); Douglas J. Skinner, *Why Firms Voluntarily Disclose Bad News*, 32 J. ACCT. RES. 38 (1994). However, most of this literature does not consider insider-trading implications. There is also some ambiguity regarding the degree to which voluntary disclosure of financial information (for example, management's earnings forecasts) mitigates litigation risk. *See, e.g.*, Field et al., *supra* note 9.

10. Rogers, *supra* note 9, at 1266–67.

or sale of any security . . . any manipulative or deceptive device”¹¹ Because the statute is ambiguous on the question of whether trades based on asymmetric information on an anonymous exchange are “manipulative or deceptive,” the statute delegates to the SEC the authority to write rules to implement the statute for “the public interest or for the protection of investors.”¹²

The relevant SEC rule is not a model of clarity either. Rule 10b-5 makes it unlawful to use interstate commerce to, among other things, “employ any . . . scheme . . . to defraud . . . in connection with the purchase or sale of any security.”¹³ The result of executive agency ambiguity layered on top of congressional ambiguity is judicial power to decide what is and what is not illegal.

As the chief prosecutor of these cases, the SEC’s point of view has considerable influence. The SEC has fairly consistently taken the view (also taken by a minority of states)¹⁴ that insiders have a duty to disclose all material information available to them before trading—the so-called disclose-or-abstain rule. The rule was first announced in *Cady, Roberts & Co.*, an enforcement proceeding in 1961.¹⁵ The SEC found liability in the case of an outside director who tipped his partner in a brokerage business about an upcoming dividend cut.¹⁶ Relying on two separate theories—first, that the director expropriated corporate information for personal use; and second, that there is “inherent unfairness” in trading on information knowing it is not known by the other side—the SEC declared that an insider in possession of material, nonpublic information (hereinafter, inside information) must disclose such information before trading or abstain from trading.¹⁷

The Second Circuit endorsed this view several years later, holding in *SEC v. Texas Gulf Sulphur Co.* that insiders of a mining company trading in advance of public disclosure of a favorable geology report violated Rule 10b-5.¹⁸ The court specifically blessed the disclose-or-abstain rule the SEC announced in *Cady, Roberts & Co.*, noting that this rule “is based in policy on the justifiable expectation of the securities marketplace that all investors trading on impersonal exchanges have relatively equal access to material information.”¹⁹

Although a variety of more recent cases add various complications and caveats, the general, de facto rule is one of mandatory abstention for insiders in

11. Securities Exchange Act of 1934 § 10(b), 15 U.S.C. § 78j (2012) (footnote omitted).

12. 15 U.S.C. § 78j(b) (2012).

13. Rule 10b-5, 17 C.F.R. § 240.10b-5 (2014).

14. See, e.g., *Oliver v. Oliver*, 45 S.E. 232, 234 (Ga. 1903).

15. 40 S.E.C. 907, 911 (1961).

16. *Id.* at 909, 917–18.

17. *Id.* at 912.

18. 401 F.2d 833, 852 (2d Cir. 1968).

19. *Id.* at 848; see also *id.* at 852 (“It was the intent of Congress that all members of the investing public should be subject to identical market risks The insiders here were not trading on an equal footing with the outside investors.”).

possession of inside information.²⁰ Mandatory abstention from trading is undoubtedly overinclusive. A rule of this nature would unnecessarily deter insiders from making trades even at times when insiders do not have inside information or are not using it to inform a trading decision. As a result, firms will face additional costs from having to compensate managers for bearing more firm-specific risk.

Some courts have recognized this problem and accepted an “I-would-have-traded-anyway” defense. In *SEC v. Adler*, the Eleventh Circuit held that the government had to prove not only that an insider possessed inside information at the time of trading, but also that the insider used the information to make the trading decision.²¹ The prototypical case was an insider claiming she planned to make a trade on the date in question before she possessed inside information. These cases routinely include a reason for the planned sale, such as the expiration of a mandatory holding period following an IPO or other transaction. The SEC, supported by other courts of appeals, continued to claim the statute banned trading while merely in possession of inside information, and its burden was only to show this.²²

But the cases left open the possibility that the SEC’s position would not prevail in certain parts of the country, so the SEC decided to promulgate a rule-based alternative to the I-would-have-traded-anyway defense. The rule would be designed to resolve the uncertainty about the possession standard. It would also allow insiders who have expected future liquidity needs the opportunity to preplan trades when they did not possess inside information and allow these trades to execute when insiders subsequently did possess inside information. Effectively, the idea was to substitute a rule for a standard, and therefore take some of the wind out of the sails of any I-would-have-traded-anyway defense. We now turn to a more detailed look at the rule.

B. RULE 10B5-1

The SEC established Rule 10b5-1 trading plans as a defense to allegations of illegal insider trading in October 2000.²³ The SEC formally adopted the possession standard, making federal claims of insider trading significantly easier.²⁴ Recognizing that this tightening of the legal standard put even more pressure on executives trying to execute uninformed diversification trades, the SEC provided insiders with a new affirmative defense for trades planned at a time when the insider did not possess inside information. The SEC adopted a version of the

20. The other option, disclosure, is unavailable because the information is likely unknown to outsiders for a (corporate) reason. Taking the information for personal use would be both a violation of an insider’s fiduciary duties (to not profit against the corporation or its shareholders) and, according to the SEC, unfair to market traders outside of the firm, and thus degrading of the public’s confidence in public securities markets.

21. 137 F.3d 1325, 1337 (11th Cir. 1998). The Ninth Circuit adopted the same “use” standard in *United States v. Smith*, 155 F.3d 1051, 1067 (9th Cir. 1998).

22. See, e.g., *United States v. Teicher*, 987 F.2d 112, 121 (2d Cir. 1993).

23. Selective Disclosure and Insider Trading, 17 C.F.R. §§ 240, 243, 249 (2000).

24. *Id.*

I-would-have-traded-anyway defense in cases in which the insider complied with the provisions of the rule.

The general idea of the rule is to allow firms the ability to reduce the costs of compensating executives with stock by allowing them greater flexibility in when they can sell that stock. Insiders value the ability to sell freely—called liquidity—because it permits them to get money when they need it, to optimize the level of risk within their wealth portfolio, and to increase returns on information.²⁵

The rule provides that insiders trade “on the basis of” inside information in cases in which the insiders were “aware of the material nonpublic information when [they] made the purchase or sale.”²⁶ The insider is given an affirmative defense under the rule if the insider can satisfy three prerequisites: First, “[b]efore becoming aware of the information” the insider must have “(1) [e]ntered into a binding contract to purchase or sell the security, (2) [i]nstructed another person to purchase or sell the security for the [insider’s] account, or (3) [a]dopted a written plan for trading securities”²⁷

Second, the “contract, instruction, or plan” must have:

(1) Specified the amount of securities to be purchased or sold and the price at which and the date on which the securities were to be purchased or sold; (2) [i]ncluded a written formula or algorithm . . . for determining the amount of securities to be purchased or sold and the price at which and the date on which the securities were to be purchased or sold; or (3) . . . not permit[ted] the [insider] to exercise any subsequent influence over how, when, or whether to effect purchases or sales²⁸

Finally, the insider must show that it did not “alter[] or deviate[] from the contract, instruction, or plan to purchase or sell securities (whether by changing the amount, price, or timing of the purchase or sale), or enter[] into or alter[] a corresponding or hedging transaction or position with respect to those securities.”²⁹

This final prerequisite could be read as limiting the ability of an insider to selectively cancel plans based on inside information; however, the SEC does not take this position. Believing there can be no securities fraud without an actual purchase or sale transaction, the SEC staff have stated, in response to telephone inquiries, that canceling a plan based on private information is not inconsistent with the rule.³⁰

25. All of these reduce firm costs, all else being equal, but only the first two are legal. Importantly, all three can increase firm costs as well because trading can generate legal liability for the firm.

26. 17 C.F.R. § 240.10b5-1(b) (2014).

27. 17 C.F.R. § 240.10b5-1(c)(1)(i)(A)(1)–(3) (2014).

28. 17 C.F.R. § 240.10b5-1(c)(1)(i)(B)(1)–(3) (2014).

29. 17 C.F.R. § 240.10b5-1(c)(1)(i)(C) (2014).

30. See Manual of Publicly Available Telephone Interpretations, Div. of Corp. Fin., Rule 10b5-1, Question 15 (4th Supp. May 2001). This position is based in part on the perceived reach of the statute,

The SEC did state, however, that canceling a plan in this way could raise questions about whether the plan was entered into in good faith.³¹ Hence another requirement: the rule includes a catchall provision intended to avoid manipulation that complies with the letter but not spirit of the rule. Plans that are not entered into in “good faith” or are entered into “as part of a plan or scheme to evade” the rule do not get the benefit of the affirmative defense.³² As discussed below, this safety valve is not likely effective in either theory or practice. It is not clear that this good-faith requirement can be readily enforced by the SEC, and empirically, insiders appear to retain a strategic advantage.³³ We provide evidence that the rule, and specifically the ability to terminate plans based on subsequently learned information, allows insiders to increase their ability to earn insider-trading profits.

Here is how a plan works: consider an insider who is paid in part with stock, but is forbidden by contract with his firm to sell that stock for thirty days prior to every quarterly earnings announcement.³⁴ These blackout windows are costly to the insider, and therefore increase the amount of compensation needed to satisfy the insider’s reservation wage.³⁵ The firm can therefore potentially reduce its total compensation costs if it can find a way to allow trading during the blackout windows without increasing its legal risk. The rule, which allows the insider to make certain or all trades pursuant to precommitment trading plans, can do this.³⁶ These plans could serve as substitutes for trading windows or other contractual restrictions. An insider with no legally significant information possession as of January 1 could enter into a trading plan on that day, agreeing to buy or sell shares pursuant to a set schedule or preset trading algorithm, or merely designate authority to a broker. Thus, in June, when the insider obtains possession of inside information, purchases or sales are still possible. According to the rule, the June sales are not on the basis of inside

and is seemingly supported by Professor Fried’s argument about the efficiency benefits that might arise from allowing insiders to cancel planned trades. See Jesse M. Fried, Essay, *Insider Abstention*, 113 YALE L.J. 455, 457–58 (2003) (arguing insiders “unable to trade while in possession of nonpublic information cannot systematically earn higher trading profits than a similarly situated public shareholder by using nonpublic information to abstain from trading”).

31. See Manual of Publicly Available Telephone Interpretations, *supra* note 30, Question 15(b).

32. 17 C.F.R. § 240.10b5-1(c)(1)(ii) (2014).

33. The rule puts the burden on the government to show a lack of good faith, which increases the cost of pursuing an action against a defendant. The government’s case was easier when it was the defendant’s burden to prove it lacked bad faith.

34. Firms impose (via private contract) limitations on trading during these times because this is when insiders are most likely to have the greatest informational advantage.

35. Darren T. Roulstone, *The Relation Between Insider-Trading Restrictions and Executive Compensation*, 41 J. ACCT. RES. 525, 526 (2003) (finding firms that restrict executive trading by imposing blackout windows pay a four to thirteen percent premium in terms of total compensation). In related research, one of the authors of this study demonstrates how unwinding blackout windows (through trading plans, for instance) results in lower CEO pay. See M. Todd Henderson, *Insider Trading and CEO Pay*, 64 VAND. L. REV. 505, 525–31 (2011).

36. See 17 C.F.R. § 240.10b5-1(c)(1)(i)(C) (2014).

information because of the precommitment. These plans are often explicit substitutes for compliance with trading windows, meaning that sales can be made under these plans at any time.³⁷ They are often adopted during open windows, however, as this helps meet the rule's requirement that the plan be entered into in good faith at a time when the insider does not have any inside information.

There are two additional features of the rule that are important to our analyses. First, the rule does not require that any or all insiders at a particular firm use the plans, nor does it require that, if an insider chooses to use a plan, all trades by that insider must be covered by the plan. This means that the CEO of a firm could use a plan, while the CFO may choose not to do so. It also means that a CEO planning to sell one hundred shares in a given year may choose to sell, say, fifty through the plan and fifty outside of the plan. This feature of the rule means that in the absence of detailed disclosures about plans, it is impossible for outsiders to know in advance of trades whether a particular sale is covered by a trading plan.

Second, the rule as promulgated does not require that the insider or firm disclose any details about the existence of a plan or whether trades executed within a plan.³⁸ As a result, there is currently no requirement for firms or insiders to provide details regarding whether or how they participate within their trading plans.

Many firms, however, choose to disclose information regarding insiders' trading plans. Interestingly, the specificity of disclosure varies widely across firms. As discussed below, some firms make no disclosures, and yet insiders use the trading plans. Other firms disclose little information, such as only that a particular insider has entered into a plan.

37. Netflix illustrates a typical insider-trading policy: "These [blackout period] restrictions on trading shall not apply to transactions made under a trading plan adopted pursuant to Securities and Exchange Commission Rule 10b5-1(c) . . ." *Insider Trading Policy*, NETFLIX, <http://ir.netflix.com/documentdisplay.cfm?DocumentID=74> (last visited Jan. 29, 2014).

38. The SEC proposed mandatory disclosure, through 8-K filings, of insiders' use of Rule 10b5-1 trading plans in April 2002. Form 8-K Disclosure of Certain Management Transactions, Securities Act Release No. 33-8090, Exchange Act Release No. 34-45742, 67 Fed. Reg. 19,914 (proposed Apr. 23, 2002). It was not adopted. There were relatively few comments on the proposal, but most were opposed to mandatory disclosure. The primary ground for opposition was that disclosure might send erroneous signals to the market about the insiders' intent in entering into the plan. *See* Letter from Cleary, Gottlieb, Steen & Hamilton to Jonathan Katz, Sec'y, SEC (June 24, 2002), *available at* <http://www.sec.gov/rules/proposed/s70902/clearygottlieb1.htm>. ("There are a variety of reasons why a person may enter into a Rule 10b5-1 plan. Many executive officers have concentrated positions in company stock as a result of the company's compensation policies, and they may be seeking to balance a need for investment diversification or liquidity against the not insignificant risk of 'insider trading' liability under Rule 10b-5. The existence of a Rule 10b5-1 plan no more indicates an insider's view of a company's prospects than, for example, a universal shelf registration statement indicates a company's intention to allocate the entire shelf to equity securities. In other words, requiring disclosure of the mere presence of these plans would attribute meaning where none may exist.").

So what explains the variation in disclosure choices that we observe? We turn to answering this question by examining the costs and benefits of disclosing trading plans.

C. DISCLOSURE CHOICE AND THE LAW

There are costs and benefits of disclosure in particular cases, and we expect insiders will disclose when the benefits exceed the costs and will not when the opposite is true. The primary benefit is reduced legal risk for insider trading and securities fraud class action cases. This is offset to varying extents by the costs of disclosure, which include lost profit through potential investor front running and the possibility that disclosure can be used to unmask opportunistic use of the plans. To set the stage for our analyses, it is worth setting out in detail our theory of the situations in which each of these possibilities is most likely.

1. Benefits of Disclosure

The key benefit of disclosure is that it can reduce legal risk.³⁹ A disclosed plan may raise the costs of prosecution for the SEC or the Department of Justice because it creates a procedural and substantive hurdle to the typical circumstantial case brought by the government. But the biggest litigation benefit is likely for securities fraud class action lawsuits against companies with publicly traded securities.

Securities fraud class actions are a substantial cost for companies because damages for even inadvertent misstatements or omissions can run into the billions. In the typical case, a stock-price drop (whether by reason of fraud or a mere business reversal) is followed quickly by a class action lawsuit seeking damages for all investors who sold at allegedly inflated prices during the class period.⁴⁰ Because the cost of defending these suits is so large, nearly every case settles if the firm cannot get rid of it at the motion-to-dismiss stage. Defense costs do not increase linearly over time; rather, they increase substantially after a motion to dismiss is denied and discovery proceeds. This is costly both in terms of compliance and potential legal risk from lawyers uncovering additional wrongdoing. It is for this reason that almost every case that gets past the motion

39. The decision to disclose information about insiders' participation in Rule 10b5-1 is a firm-level choice. We infer this because disclosure is observed through firm-level disclosure instruments (e.g., SEC 8-K, Form 4, 10-Q/K filings, and press releases) that often require processing through the firm's legal, media relations, and or investor relations departments. We also infer this because we commonly observe multiple insiders from the firm named in a single firm-disclosure document, which seems to indicate that insiders are not individually disclosing their participation. Finally, we infer this because several corporate attorneys and Rule 10b5-1 plan administrators have anecdotally conveyed that firms, acting through their boards, determine policy regarding disclosure of these plans. What is not clear, however, is why firms disclose information about their insiders' use of 10b5-1 plans or why there is considerable variation in how much detail is disclosed about insiders' use of these plans.

40. For a discussion of securities class action suits, see generally Stephen J. Choi, *The Evidence on Securities Class Actions*, 57 VAND. L. REV. 1465 (2004).

to dismiss settles.⁴¹

Disclosure of insider-trading plans can be used to reduce the expected costs of securities fraud class action lawsuits. In these cases, plaintiffs try to prove the scienter element at the motion-to-dismiss stage by pointing to trades by insiders during the time when the stock price was allegedly inflated by fraud. Defendants can use a trading plan to rebut this claim. Trades made pursuant to such plans are less likely to create an inference of scienter because they are attenuated in time from the class period in which the fraud was alleged. For instance, it is much more difficult for plaintiffs to prove that a trade made on June 1 (during the class period) was informed by inside information when the trade was preplanned as part of a 10b5-1 trading plan entered into on January 1, than if there were no preplanning.

Crucially, courts cannot consider the 10b5-1 affirmative defense at the motion-to-dismiss phase if the plans were previously undisclosed. This is because courts cannot consider materials other than the plaintiff's pleadings when considering the motion, and defendants are not typically allowed to rebut factual allegations. Courts can, however, consider publicly available documents that are not a part of the complaint by taking judicial notice of already released SEC filings, prospectuses, analysts' reports, and other publicly reported data.⁴² A publicly disclosed 10b5-1 plan thus has a greater likelihood of influencing a motion to dismiss than a plan that is not publicly disclosed. Numerous cases stand for this proposition.⁴³

41. The most comprehensive database of federal securities fraud trials reports about thirteen since 1996 (the year after the PSLRA). See Bernard Black et al., *Outside Director Liability*, 58 STAN. L. REV. 1055, 1063–66 (2006). During this time, there were 2483 securities class actions filed in federal courts. See *FEDERAL SECURITIES CLASS ACTION LITIGATION 1996-YTD*, STAN. L. SCH., <http://securities.stanford.edu/charts.html> (last visited May 11, 2015). This means 0.5% of cases result in a trial.

42. See, e.g., *Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 322 (2007) (explaining that, in reviewing a 12(b)(6) motion, courts may consider matters subject to judicial notice under Federal Rule of Evidence 201). Under Federal Rule of Evidence 201, courts may take judicial notice of facts not in the complaint if the fact is “not subject to reasonable dispute because it: (1) is generally known within the trial court’s territorial jurisdiction; or (2) can be accurately and readily determined from sources whose accuracy cannot reasonably be questioned.” FED. R. EVID. 201.

43. See, e.g., *Weiner v. Klais & Co.*, 108 F.3d 86, 88–89 (6th Cir. 1997); *In re Royal Appliance Sec. Litig.*, No. 94-3284, 1995 WL 490131, at *2 (6th Cir. Aug. 15, 1995). Precedent cases suggest that disclosure is needed to mount a defense at the motion to dismiss stage. For example, *Fener v. Belo Corp.*, 425 F. Supp. 2d 788, 814 (N.D. Tex. 2006), notes that plaintiffs have an obligation to address in their complaint whether a trading plan was in effect, and if so, “why . . . this does not undercut a strong inference of scienter.” *Friedman v. Rayovac Corp.*, 291 F. Supp. 2d 845, 855 (W.D. Wis. 2003) notes that it would generally not consider the trading plan or any other document appended to the motion to dismiss, but it would in this case as the plan was “‘publicly available’ on the SEC’s website and was filed as an exhibit to numerous reports Rayovac filed with the SEC.” *In re Netflix, Inc. Securities Litigation*, No. C04-2978, 2005 WL 1562858, at *8 (N.D. Cal. June 28, 2005), and *Wietschner v. Monterey Pasta Co.*, 294 F. Supp. 2d 1102, 1113 (N.D. Cal. 2003), the courts considered publicly disclosed trading plans at the motion-to-dismiss stage to find no strong inference of scienter. *SEC v. Healthsouth Corp.*, 261 F. Supp. 2d 1298, 1322–23 (N.D. Ala. 2003) notes the existence and disclosure of a trading plan to rebut scienter for securities fraud.

Corporate advisors share this view. For example, Institutional Shareholder Services, the largest proxy advising firm for institutional shareholders, concludes that “plans should be filed in some form with the SEC so that . . . [they] can be considered at the motion to dismiss stage.”⁴⁴ Lawyers advising firms on securities fraud litigation matters also think disclosure is a prerequisite to risk reduction: “The adoption of the Rule 10b5-1 trading plans . . . should be publicly disclosed” to reduce the risk of litigation.⁴⁵ In short, although undisclosed 10b5-1 plans provide some risk reduction in the event the case goes to trial, disclosure can further enhance legal protection by increasing the likelihood of early dismissal for securities class action suits.

One other detail about trial procedure is relevant to the disclosure decision. Because the motion-to-dismiss stage consists of a preliminary look at the merits of the case, the degree of detail disclosed regarding insiders’ Rule 10b5-1 plans likely impacts the probability of dismissal. If only the existence of a plan is disclosed, a court may not have sufficient information at this stage of litigation to ascertain whether the insider sufficiently complied with the rule and whether the allegedly fraudulent trades were covered by the plan. If the full details about planned trades (for example, dates, amounts, or prices) are disclosed, however, a court may better ascertain whether the allegedly fraudulent trades fall within the rule’s affirmative defense, thereby increasing the probability of a low-cost dismissal. In other words, specific disclosures can be expected to offer more litigation protection than limited disclosures because alleged illegal trading behavior can be more easily rebutted with evidence that particular trades were made pursuant to a plan.

A decision by the First Circuit reaches exactly this result and thus highlights the importance of making specific disclosures. In *Mississippi Public Employees’ Retirement System v. Boston Scientific Corp.*, the court reversed the grant of defendant’s motion to dismiss in part on the ground that the trial court inappropriately considered Rule 10b5-1 trading plans outside of the public record.⁴⁶ The court noted:

It was defendants’ choice to move to dismiss the case on the pleadings without presenting evidence. As a result, there is no evidence of when the trading plans went into effect, that such trading plans removed entirely from

44. *More on Trading Plans/Restrictions and Motions to Dismiss: Monterey Pasta Co. and Rayovac Corp.*, RISKMETRICS GROUP (Nov. 24, 2003), https://web.archive.org/web/20090108163559/http://slw.riskmetrics.com/2003/11/more_on_trading_plansrestricti.html (Risk Metrics acquired Institutional Shareholders Services in 2006).

45. Lyle Roberts & Nicholas Porritt, *Individual Trading Plans Can Help Defend Securities Fraud Claims*, COMPLIANCE WEEK (July 7, 2004), <http://www.complianceweek.com/news/opinion/individual-trading-plans-can-help-defend-securities-fraud-claims>; Barry Siegel & Kelly Lenahan, *Rule 10b5-1 Trading Plans: Planned Liquidity for Insiders*, TECH. TIMES (Dec. 2002), https://web.archive.org/web/20060531131956/http://klehr.com/Articles/bs_kl1202.html (accessed by searching for klehr.com in the Internet Archive index).

46. 523 F.3d 75, 78–79, 92–93 (1st Cir. 2008).

defendants' discretion the question of when sales would occur, or that they were unable to amend these trading plans.⁴⁷

The takeaway for firms and executives is that plans must be disclosed to have risk-reduction benefits when the stakes are highest for corporate defendants.

2. Costs of Disclosure

There are several potential costs of public disclosure of planned trades. First, disclosure may induce investor front running,⁴⁸ which can effectively lower prices before insiders' trades execute.⁴⁹ Accordingly, insiders may prefer nondisclosure when litigation risk is low, because the costs to insiders from front running can outweigh the incremental legal protection afforded by disclosure. Firms may prefer this strategy as well, since they likely bear the costs of making insiders whole when they reduce insider-trading opportunities. Interviews and comment letters regarding proposed mandatory disclosure indicate that front-running concerns factor into the decision to not disclose.⁵⁰

Second, *ex ante* disclosure allows for *ex post* reconciliation of plan commitment if it provides plan details. If planned trades were always executed, this would not be a problem. But, as we discuss below, insiders can terminate preplanned trades to profit based on inside information. If outsiders can observe these opportunistic terminations, it may be a negative signal about the insider or the firm. If this is so, there is a cost to disclosure in the event a planned trade is terminated. Therefore if an insider thinks termination is a possibility, the insider may be less likely to disclose, or might disclose in a way that would be less likely to allow identification of terminated trades.

Because it is crucial to our analyses, it is worth returning briefly to the subject of opportunistic termination mentioned above. The value of termination comes from the SEC's view that canceling a trade is not the purchase or sale of a security, and therefore is not covered by the statute or rules implementing it.⁵¹ This interpretation creates a valuable option for insiders. To see this, imagine an insider of a pharmaceutical company who on January 1—based on publicly available information—believes with 99% confidence that the FDA will approve the company's sole drug in development in December. The insider is concerned, however, that if the 1% probability of nonapproval happens, the stock will be worth zero. Importantly, the insider also believes that by, say, June

47. *Id.* at 92.

48. Khan & Lu, *supra* note 3, at 1743.

49. Admati & Pfleiderer, *supra* note 3, at 443.

50. Letter from Cleary, Gottlieb, Steen & Hamilton, *supra* note 38 (“[R]equiring disclosure of the mere presence of these plans would attribute meaning where none may exist.”).

51. See *supra* notes 30–31 and accompanying text. As noted above, telephone interpretations are merely the recommendations of the SEC staff, and therefore do not reflect the SEC's official view. This staff opinion prevailed during the entire period of this study and, to our knowledge, has not been overruled by official SEC action to this date.

she will know the FDA decision with certainty, six months before it is revealed in December. In this case, under the rule, the insider could enter into a plan on January 1 to sell her stock in June, long before the decision is revealed. Although the planned trades are foolish in expectation, the insider can terminate them 99% of the time without penalty, and in the 1% case, let them execute and thereby avoid losses, hoping that the plan will shield the trades. Although this is an extreme case, the logic of the option is clear. Although the government could still try to prosecute the insider in this example, the prosecution will be more difficult because of the rule: the government must prove the insider knew in June, compared with the necessary implication that would arise if the insider traded much nearer to the release of the FDA decision. In addition, the government will only be able to prosecute the trades that execute, even though the unexecuted trades were arguably illegal and valuable to insiders.

It is also important to see how this option interacts with disclosure. If plans are not disclosed, the option's cost is zero because no outsiders will know of the planned trades, and therefore cannot identify opportunistic terminations. Disclosure raises the cost of the option by allowing outsiders to reconcile data reported in insiders' transaction reports with details provided in 10b5-1 disclosures.⁵² Reconciliation could reveal insiders' use of the strategic early plan termination option, potentially increasing regulatory scrutiny of insiders' good faith compliance with the rule.⁵³ Therefore, greater disclosure reduces insiders' value of the early termination option. *Ceteris paribus*, insiders should generally prefer no disclosure.

3. Summary

The preceding discussion suggests that firms and insiders likely obtain litigation benefits from Rule 10b5-1 plan disclosures and that the benefits increase with the specificity of the public disclosures. There are also costs to disclosure having to do with the ability of insiders to protect their trading strategies and the potential that trades will leave footprints that will allow outsiders to divine or allege illegal trading activity.

D. IMPLICATIONS FOR INSIDER TRADING STRATEGIES

To understand the potential effect of disclosure on strategic trading, it is helpful to consider the type of information an insider might have at plan initiation and the likelihood that an insider might obtain valuable private information over the duration of her trading plan. We develop three scenarios

52. Insiders are required to file a report with the SEC within two business days of a transaction. See SEC, SEC1475(11-11), FORM 4: STATEMENT OF CHANGES OF BENEFICIAL OWNERSHIP OF SECURITIES 2, available at <http://www.sec.gov/about/forms/form4data.pdf>.

53. The SEC states that termination of a plan, or the cancellation of one or more plan transactions, could affect the availability of the Rule 10b5-1(c) defense for prior plan transactions. See Manual of Publicly Available Telephone Interpretations, *supra* note 30, Question 15(b).

that we think reflect the bulk of activity under these plans. Our confidence is based on the analyses we present below.

These three scenarios map onto the disclosure practices we observed. Some insiders/firms do not disclose 10b5-1 plans; some make limited disclosures (for example, *X* has entered into a plan); and some make specific disclosures (for example, *X* will trade *Y* shares on *Z* date).

1. Scenario 1: Nondisclosure Case

In the first scenario, the insider possesses some inside information at plan initiation but does not expect to obtain highly valuable information over the duration of her plan. For example, this would be true for firms that exhibit low volatility. This insider may be less concerned with potential trade-based litigation risk because the nature of her information is less likely to generate legal scrutiny, and she already obtains some litigation protection from entering a 10b5-1 plan even if it is not disclosed. If the firm discloses information about her plan, this insider may be concerned that she will lose her modest information advantage. This would happen if the market infers that she is privately informed and adjusts price downward before her trades execute. If this were the case, then this particular insider would prefer nondisclosure.

If this scenario describes the case for nondisclosure of plans, then undisclosed 10b5-1 sale transactions are less likely to be associated with patterns of opportunistic trading. Accordingly, stock returns in the period following sales from undisclosed trading plans should show no discernable pattern of stock price drops. That is, if sales are uninformed, then the stock price following sales is as likely to rise as it is to fall, so across many firms the expected change should be approximately zero.

2. Scenario 2: The Limited Disclosure Case

Consider next an insider who does not possess valuable information at plan initiation (or who may possess valuable information with high uncertainty) and who expects to obtain valuable information (for example, an updated signal regarding her initial information) over the duration of her plan. This insider may establish a 10b5-1 sales plan in anticipation of a potential bad outcome yet want the option to terminate the plan if an updated signal subsequently indicates the bad outcome will not materialize, as in the pharmaceutical firm example mentioned above.⁵⁴

Because this strategy might reveal a suspicious trade pattern if the bad outcome does materialize (that is, trading before bad news), the insider would likely value some incremental legal benefit from disclosure. And because a key element to this strategy is preserving the termination option, this insider would not prefer for the firm to disclose specific details about her 10b5-1 plan. Specific disclosure of planned sales would provide strong evidence of termination,

54. See *supra* text accompanying notes 51–52.

which could result in legal or reputational costs for the insider. This insider would prefer the firm only disclose limited detail, because this provides some incremental litigation-risk reduction and yet preserves the termination option at relatively low cost.⁵⁵

If this setting describes the limited disclosure group of trades, then trade patterns would be consistent with *ex ante* uncertainty and subsequent early termination.⁵⁶ Early termination would remove sales that would otherwise be unprofitable, so sales that are retained likely reveal modest patterns of strategic trading. We would therefore expect sales under trading plans to systematically precede negative stock price performance.

3. Scenario 3: The Specific Disclosure Case

Finally, consider an insider who possesses valuable negative (and reasonably certain) information at plan initiation.⁵⁷ This insider may establish a trading plan to take advantage of this information, timing sales to precede it sufficiently to reduce legal liability. Because the probability of the bad outcome is high, the insider does not expect to utilize the termination option (because it is unlikely that a subsequent updating signal will indicate that the bad outcome will not materialize). This strategy would *ex post* reveal a suspicious trade pattern when the bad outcome materializes, so the insider would likely value the incremental legal benefit from specific disclosure.⁵⁸ The more specific the disclosure, the greater chance the plan will be effective at dismissing a case early in the process. And because the insider does not value the early termination option, the insider is willing to forego the option in lieu of enhanced legal protection by providing specific details regarding the trade plan.

If this setting describes a specific-disclosure group of trades, then trade patterns would be consistent with *ex ante* certainty regarding pending negative performance. Therefore, sales that are executed within specifically disclosed plans should reveal strong patterns of strategic trading. We would therefore expect sales under trading plans to systematically precede negative stock price performance.

These scenarios form the framework for our empirical analyses. We exploit the observed disclosure heterogeneity across firms to test whether the trading

55. Because limited disclosure does not provide sufficient plan detail, one cannot infer, *ex post*, whether an absence of trade results from early termination, nonexecution due to failure to meet limit orders, or natural plan termination.

56. Insiders' trading plans are not observable unless they are voluntarily disclosed (a rare event). Therefore, we are not able to examine directly whether limited disclosures are characterized by this specific strategy.

57. It seems unlikely that an insider would strategically plan 10b5-1 sales if she possessed reasonably certain positive information at plan initiation. After all, the optimal strategy in such a case would be to hold the shares (and buy more).

58. This strategy is expressly forbidden by Rule 10b5-1, since the insider possesses inside information at the time of the plan creation. As noted above, notwithstanding this fact, the costs of bringing suits under the rule are likely higher in this case than if the same strategy were used outside of the rule.

patterns of hundreds of executives using plans over a multi-year period conform to our hypotheses about the use of disclosure to shield informed trades. Our evidence suggests they do. Before we present the analyses, we next describe the procedures we used to collect and partition our dataset.

II. SAMPLE SELECTION PROCEDURES

The sample of participation disclosures was collected from keyword searches for variants of the expression “10b5-1” through 8-K filings, business wire reports, and press releases between October 2000 and December 2006.⁵⁹ We end our sample period here to avoid potentially confounding effects associated with the global financial crisis. Our keyword search nets 773 firm observations. Additional disclosure observations were collected from keyword searches for variants of the expression “10b5-1” through SEC Form 4 filings between October 2000 and December 2006.⁶⁰ This keyword search netted an additional 894 firm observations.

We then categorized each 10b5-1 plan into the “limited” or “specific” disclosure partitions described below.⁶¹ The disclosure is classified as specific if it delineates the specific terms underlying the plan: transaction date(s), transaction volume(s), plan duration, and limit order price (if one exists). Figure 1 provides one example of a disclosure that is classified as specific.

If the disclosure does not delineate the specific terms underlying the plan, the disclosure is categorized as limited.⁶² Figure 2 provides one example of a disclosure that is classified as limited.

All Form 4 disclosures are classified as limited because they typically state that a particular transaction is Rule 10b5-1 compliant, yet provide no specific

59. Commonly reported variants of the keyword expression include “10-b-5-1” and “10b5-1(c).”

60. The SEC mandated electronic Form 4 filings as of June 30, 2003. Mandated Electronic Filing and Web Site Posting for Forms 3, 4 and 5, Securities Act Release No. 33-8230, Exchange Act Release No. 34-47809, Investment Company Act Release No. 26044, 68 Fed. Reg. 25,788 (May 13, 2003) (codified at 17 C.F.R. pt. 230, 232, 239, 240, 249, 250, 259, 260, 269, 274). Unlike previously reported paper filings (which are available electronically as image scans), the electronic filings enable global keyword searches. As a result, a substantial proportion of the Form 4-generated sample comes from the period subsequent to June 2003.

61. Using a random sample of 100 limited-disclosure firms and all of the specific-disclosure firms, we find that the decision to disclose 10b5-1 trading plan is “sticky.” Specifically, in untabulated tests, we find during the year (second year) following the first full year after initial disclosure that 35% (35%) of limited disclosure firms continue to provide limited disclosures through 8-K filings, business wire reports, press releases, or Form 4 filings, and that 19% (14%) move to providing specific disclosures. In addition, we find that during the year (second year) following the first full year after initial disclosure that 19% (14%) of specific-disclosure firms continue to provide specific disclosures through 8-K filings, business wire reports, or press releases, and that 30% (43%) move to providing only limited disclosures.

62. Heterogeneity in disclosure specificity exists within the limited-disclosure category. However, attempts to further partition limited disclosures along specificity dimensions are inherently ad hoc, because it is unclear, for example, whether a disclosure that provides details about the maximum shares tradable within a plan is more or less specific than a disclosure that provides details about the approximate timing of transactions within the plan (for example, “Shares will be traded monthly.”). Therefore, our tests do not rely on specificity classifications within the limited group. Although this

Keiser Trading Plan

On February 28, 2005, we acknowledged the entry by Kenneth E. Keiser, a “named executive officer” as such term is defined in Item 402(a)(3) of Regulation S-K, into a Rule 10b5-1 trading plan with Fidelity Brokerage Services LLC. Pursuant to the trading plan, Mr. Keiser has agreed to exercise certain in-the-money stock options and sell the shares received upon such exercise at a price not less than \$20.50 per share. From March 2005 through December 2005, the trading plan covers the option exercise and disposition of 15,000 shares per month, for a total disposition of 150,000 shares.

The trading plan, which appears as Exhibit 10.2 to this report, is incorporated by reference in response to this Item 1.01.

ATTACHMENT A**STOCK OPTION SHARES TO BE SOLD (HELD)**

Option Grant Date	Option Exercise Price	Number of Options to Exercise	Number of Shares to Be Sold	Number of Shares to Be Held	Earliest Possible Sale Date	Type of Order (Market/Limit)	Time in Force (Day/Date Range/GTC)	Limit Price (if any)
12-10-98	\$ 13.09	15,000	15,000		3-1-05	Limit	3-1-05 to 3-31-05	\$ 20.50
12-10-98	\$ 13.09	15,000	15,000		4-1-05	Limit	4-1-05 to 4-30-05	\$ 20.50
12-10-98	\$ 13.09	15,000	15,000		5-1-05	Limit	5-1-05 to 5-31-05	\$ 20.50
12-10-98	\$ 13.09	6,301	6,301		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-20-00	\$ 12.17	5,578	5,578		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-19-01	\$ 14.5313	3,121	3,121		6-1-05	Limit	6-1-05 to 6-30-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		7-1-05	Limit	7-1-05 to 7-31-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		8-1-05	Limit	8-1-05 to 8-31-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		9-1-05	Limit	9-1-05 to 9-30-05	\$ 20.50
1-19-01	\$ 14.5313	15,000	15,000		10-1-05	Limit	10-1-05 to 10-31-05	\$ 20.50
1-19-01	\$ 14.5313	13,879	13,879		11-1-05	Limit	11-1-05 to 11-30-05	\$ 20.50
2-21-02	\$ 12.68	1,121	1,121		11-1-05	Limit	11-1-05 to 11-30-05	\$ 20.50
2-21-02	\$ 12.68	15,000	15,000		12-1-05	Limit	12-1-05 to 12-31-05	\$ 20.50

Figure 1: Specific Disclosure Example
Excerpts from PepsiAmericas, Inc. Form 8-K, Filed March 3, 2005

Item 8.01. Other Events.

On June 13 and June 14, 2006, certain executive officers of Ariba, Inc. (“Ariba”) entered into written sales plans intended to comply with the requirements of Rule 10b5-1 under the Securities Exchange Act of 1934 (the “Sales Plans”). Specifically, Robert Calderoni, Ariba’s Chairman and Chief Executive Officer, Kevin Costello, Ariba’s Executive Vice President and Chief Commercial Officer, James Frankola, Ariba’s Executive Vice President and Chief Financial Officer, and Kent Parker, Ariba’s Executive Vice President and General Manager, Ariba Global Services Organization, each entered into a Sales Plan intended to be in effect through July 2007, and Tayloe Stansbury, Ariba’s Executive Vice President of Engineering, entered into a Sales Plan intended to be in effect until June 2009.

Under Rule 10b5-1, a company’s directors and officers and other persons who are not in possession of material nonpublic information regarding the company may adopt a pre-arranged plan or contract for the sale of company securities under specified conditions and at specified times. As sales are executed in the future under the Sales Plans, they will be reported in accordance with federal securities laws. Using the Sales Plans, insiders can gradually diversify their investment portfolios while avoiding concerns about transactions occurring at a time when they might possess material nonpublic information.

Figure 2: Limited Disclosure Example
Excerpt from Ariba, Inc. Form 8-K, Filed June 16, 2006

choice results in isolating a relatively small set of firms in the specific category, it provides a clean delineation between specific and limited disclosure firms, which enhances the power and interpretability of our tests.

details regarding the underlying plan.⁶³ This classification procedure yields 94 specific and 1,573 limited firm observations that are further constrained for estimation by data availability.⁶⁴

Some analyses require identifying a sample of firms where insiders' participation in Rule 10b5-1 is not disclosed.⁶⁵ The nondisclosure sample is inferred from firms where there is no Rule 10b5-1 participation disclosure, where insiders execute sale transactions within thirty-calendar-day periods that precede quarterly earnings announcements, and where the firm does not appear to have previously allowed trades to execute in short windows before earnings announcements.⁶⁶ This inference relies on the assumption that most firms generally blackout insiders' trades before earnings announcements, yet allow Rule 10b5-1 transactions to bypass blackout restrictions.⁶⁷

We now discuss empirical analyses that demonstrate our main claim—that insiders are able to use disclosure as a mechanism to shield informed trades from legal scrutiny.

III. EMPIRICAL ANALYSES

In this Part, we discuss evidence that trading behavior (for example, the number of trades made and trading profits earned) is consistent with disclosed trading plans providing cover for potentially informed trades.

63. Form 4 disclosures may lead to different inferences than other participation disclosures because they follow trades made within 10b5-1 plans. Form 4 disclosures are similar to other limited disclosures, however, in that they convey that an insider has initiated a plan and that the insider is likely to execute further trade within the plan.

64. Estimation samples are further constrained by the availability of price and returns data from the Center for Research in Security Prices (CRSP), insider transaction data from Thomson Financial, institutional ownership data from CDA/Spectrum, governance data from Equilar, management forecasts of earnings from the First Call Company Issued Guidance (CIG) database, and earnings performance data from Compustat.

65. Alan Jagolinzer corroborates the existence of firms that choose to not disclose 10b5-1 plan participation, through a survey of nearly 2,700 Nasdaq firms. *See Jagolinzer, supra* note 4, at 227 n.22.

66. Specifically, firms are excluded if insider trades are observed in pre-earnings windows during the year that precedes Rule 10b5-1 promulgation. Research shows fewer than 20% of sample firms authorize insiders' trades in the thirty days that precede earnings announcements. *See J.C. Bettis et al., Corporate Policies Restricting Trading by Insiders*, 57 J. FIN. ECON. 191, 199 (2000).

67. At least two errors can occur from the nondisclosure sample inference algorithm. The first error occurs if the nondisclosure sample inadvertently excludes participating firms whose insiders' transactions do not execute shortly before earnings (Type II error). We estimate that our algorithm results in a relatively low false negative error rate of 30% when applied to disclosing firms, where plan participation is known. The second error occurs if the nondisclosure sample inadvertently includes nonparticipating firms whose insiders' transactions execute shortly before earnings for reasons other than 10b5-1 plan execution (Type I error). We estimate that our algorithm results in a relatively low false positive error rate of 14% when applied to firms surveyed by Jagolinzer in earlier work for their participation in 10b5-1 trading plans. If trading within pre-earnings windows under general counsel approval is typically less strategic, then false positive error should bias against documenting an association between nondisclosure and strategic trading. Note that any misclassifications resulting from the use of this algorithm only relate to comparisons involving the nondisclosure subsample—that is, comparisons of limited- versus specific-disclosure subsamples are not affected.

A. EVIDENCE OF STRATEGIC TRADING

Our analyses investigate whether there is a link between the incremental legal protection arising from disclosure and insiders’ opportunistic trading. Specifically, we investigate whether insiders’ trading activity is greater than expected (based on historical trade patterns) within 10b5-1 plans, and we also investigate whether insiders’ sales within 10b5-1 plans tend to precede negative return realizations.

Courts might consider trade activity by insiders to be legally suspect if it seems materially larger than the insiders’ prior trading history. Figure 3 plots the

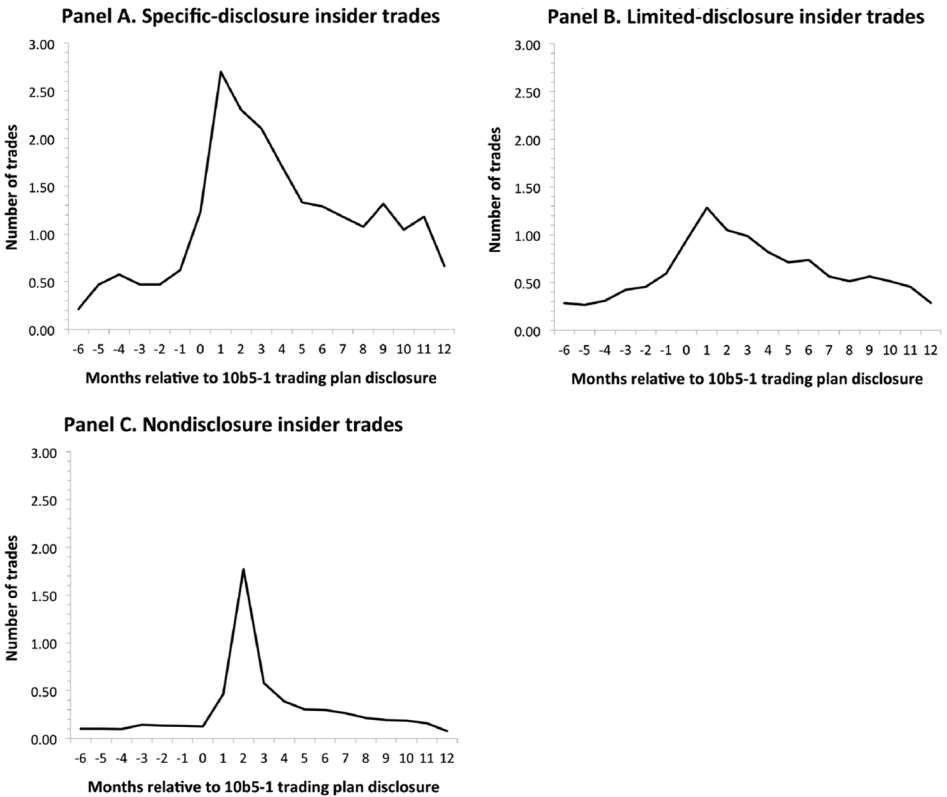


Figure 3: Average Number of Trades per Insider Following Disclosure of 10b5-1 Trading Plans: Participants

average number of trades per insider surrounding the disclosure of insiders’ participation in 10b5-1 trading plans.⁶⁸ Because the typical plan length is twelve

68. The use of the number of trades as a measure of insider trader activity follows prior related research. Bettis et al. use the number of trades (per trading day) by insiders to demonstrate reduced insider trading during blackout periods relative to open trading windows. Bettis et al, *supra* note 66, at 201. In addition, Lauren Cohen et al. use the number of trades by insiders to demonstrate that the

months, our analysis focuses on the twelve months after disclosure, with month zero being the month of first disclosure. Stock transactions include both insiders' sales and purchases; however, the transactions are almost exclusively insider sales. For nondisclosure firms, a first-pseudo-disclosure date is identified as the sixtieth calendar day that precedes the first observed within-blackout-window transaction.⁶⁹ Because the typical disclosure happens within a month (rather than at the beginning or end of a month), month zero includes trades before and after the actual disclosure during the month.

Figure 3, Panels A, B, and C all show that the average number of trades per insider increases materially following the first disclosure of 10b5-1 trading plan information (or following the first-pseudo-disclosure date for nondisclosure firms).⁷⁰ These trading patterns are consistent with abnormal selling activity by insiders following disclosure, with the greatest increase in the number of trades occurring in month zero. Figure 3 also shows that the average number of trades per insider increases with disclosure specificity, with the largest increase in the average number of trades per insider making specific disclosures. In addition, Figure 3 shows that the abnormal trading remains elevated for six to eight months following disclosure and then returns to a more typical level.

This figure plots the average number of insiders' trades by disclosure type in the months surrounding the first disclosure of participants' plans.

To provide an alternative comparison group that uses a firm as its own control, Figure 4, Panels A and B present the insider trading patterns for nonparticipants at firms that have disclosed details about 10b5-1 plans during the same time periods as Figure 3. The panels fail to show a similar increase in trading activity following disclosure by nonparticipants. In addition, the panels fail to show that trading activity by nonparticipants increases with disclosure specificity.

This figure plots the average number of insiders' trades by disclosure type for insiders not participating in the 10b5-1 trading plans in the months surrounding the first disclosure of participants' plans between 2001 and 2006.

This analysis shows a potentially opportunistic pattern of trading activity following disclosure of 10b5-1 trading plans that is inconsistent with insiders

intensity of opportunistic trades is informative for future returns. Lauren Cohen et al., *Decoding Inside Information*, 67 J. FIN. 1009, 1014, 1026–28 (2012).

69. The average number of days between disclosure and the first observed trade (at firms that provide disclosures) is fifty-three. The sixtieth calendar day is selected for consistency with the approximate timing in the observed disclosure data.

70. The observed spike in the number of trades in Panel C is mechanically linked to how we identify and construct the nondisclosure sample. Specifically, we identify the nondisclosure sample by isolating insiders who execute sale transactions within thirty calendar days before quarterly earnings announcements. We then use the sixtieth calendar day that precedes the first observed pre-earnings trade as a first-pseudo-disclosure date. This method biases towards observing spikes in trading activity subsequent to the first-pseudo-disclosure date. This issue should not materially affect our investigation of returns performance following these transactions because it is not clear, *ex ante*, whether these transactions should systematically predict a significant news event.

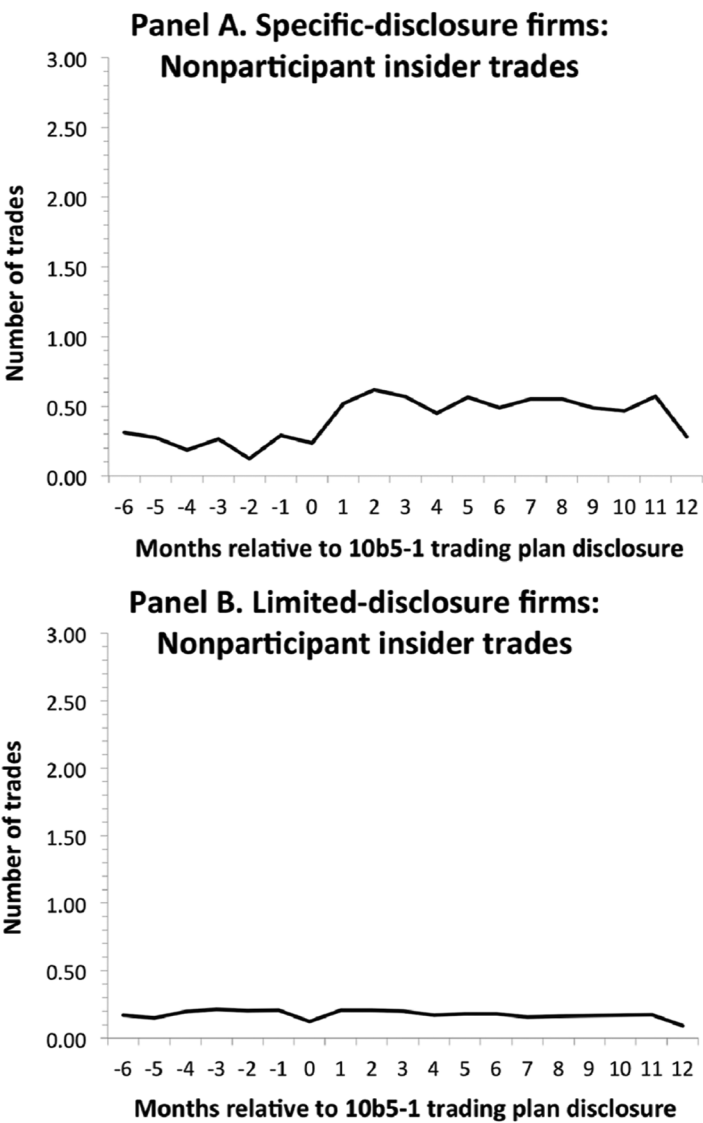


Figure 4: Average Number of Trades per Insider Following Disclosure of 10b5-1 Trading Plans: Nonparticipants

own past trading practices and the trading practices of non-10b5-1 trading plan trading by other insiders. Untabulated multivariate regression analysis supports that the trade volume differences across disclosure groups, observed in Figures 3 and 4, are statistically significant at conventional levels.⁷¹

The evidence regarding the number of trades of plan participants compared with nonparticipants is suggestive, but not definitive that insiders are using

71. Results are available from the authors upon request, but are withheld here for brevity.

these plans opportunistically and that the opportunism is increasing in disclosure specificity. In the next section, we discuss evidence regarding the subsequent stock price performance of firms depending on whether their insiders disclose nothing, a limited amount, or transaction specifics.

B. RETURNS ANALYSIS

As noted above, our hypothesis is that if insiders rely on strategic disclosure to affect personal trading profits, then disclosure should be associated with greater negative stock price performance subsequent to 10b5-1 trades with greater disclosure specificity. The evidence we present supports this hypothesis.

Figure 5 plots the cumulative abnormal return relative to the timing of insiders' sales that are executed after the first disclosure of insiders' participation within the Rule.⁷² Specifically, Figure 5 cumulates the market-adjusted firm returns⁷³ from day -30 to day +30 relative to each insider transaction day (executed on day zero) during the one-year period that follows the insider's first participation disclosure.⁷⁴ For nondisclosure firms, a first-pseudo-disclosure date is identified as the sixtieth calendar day that precedes the first observed within-blackout-window transaction.⁷⁵

Figure 5 plots the average cumulative abnormal return relative to insiders' sale transactions within Rule 10b5-1. The figure includes 1,108 specific, 23,040 limited, and 20,818 nondisclosure three-day observations. Panels A, B, and C all show that 10b5-1 sales trades tend to follow positive market-adjusted returns—that is, the sales happen after a run-up in the stock price. These patterns are consistent with some 10b5-1 sales being triggered by limit-order formulas.⁷⁶ Panels A and B show that sales trades that follow disclosed plans are associated with negative market-adjusted returns subsequent to the transaction. In stark contrast, Panel C shows that sales trades that follow nondisclosure do not appear to be associated with negative subsequent market-adjusted returns. A comparison of post-trade returns slopes across the Figure 5 panels

72. Returns analyses focus exclusively on insiders' sales here for brevity. Sales comprise nearly all transactions executed within Rule 10b5-1, and there are no specific-disclosure observations associated with pending insider purchases.

73. Calculated as daily firm return—that is, the daily return to the value-weighted CRSP portfolio.

74. For all nondisclosure and most limited-disclosure observations, it is not possible to discern the length of 10b5-1 plans. A typical disclosed plan length is twelve months, so we assume that trades made within twelve months following plan disclosure are made pursuant to the rule. Misclassification of observed trades likely introduces noise into our tests.

75. For disclosure firms (excluding Form 4 disclosures), the average number of days between disclosure and the first observed trade is fifty-three. The median number of days is seventeen. Results are not sensitive to denoting the first-pseudo-disclosure date as the thirtieth calendar day that precedes the first observed within-blackout-window transaction.

76. Several disclosed 10b5-1 plans delineate minimum-price-floor limits to trigger transactions. Some disclosed plans also delineate graduated limits that trigger incremental sales volume when higher price thresholds are realized. Results from simple random walk simulations (untabulated) show that presales run-up returns are biased upwards as limit-order prices are increased.

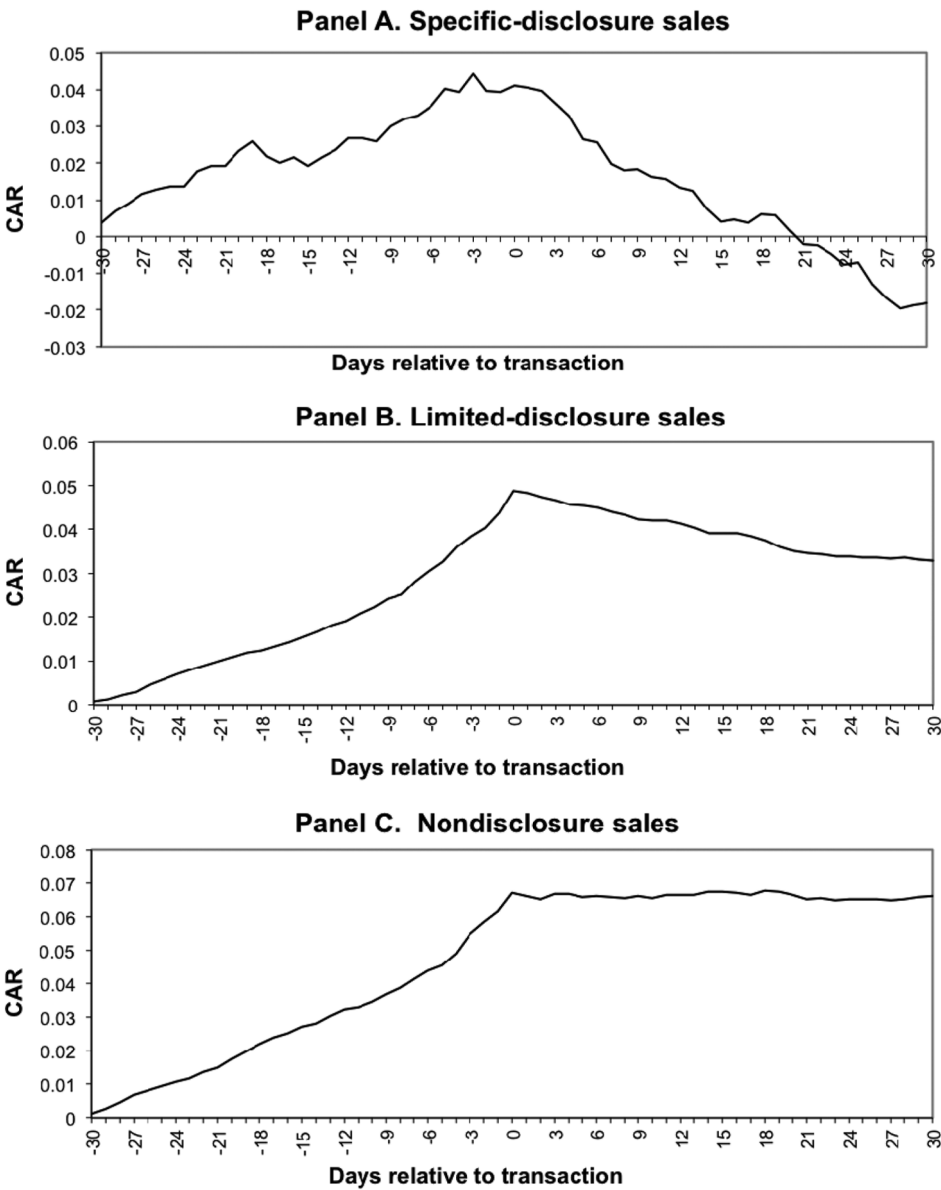


Figure 5: Cumulative Abnormal Return Relative to Sale Transactions

suggests that the degree to which sale transactions are associated with negative performance increases with Rule 10b5-1 plan disclosure specificity.

It is worth considering these patterns from a regulatory perspective. As noted above, the SEC’s stated purpose in promulgating Rule 10b5-1 was to reduce the amount of informed insider trading. Stated differently, the SEC expected the rule to produce the outcome we observe in Panel C for all traders because, as that panel shows, trades following 10b5-1 trading plan sales are uninformed—

that is, the expected value of postsale stock price change is zero, or the price is as likely to go up as it is to go down. The systematic negative trend in postsale stock price for two large groups of traders under 10b5-1 plans is strong evidence consistent with an unintended regulatory consequence.

C. MULTIVARIATE ANALYSIS

We formally test the association between trading returns and disclosure specificity using a standard calendar-month portfolio estimation of monthly returns regressed on factors known to explain monthly returns.⁷⁷ Our approach follows the portfolio estimation method suggested by Mark L. Mitchell and Erik Stafford to control for potential contemporaneous cross-sectional correlation.⁷⁸ Specifically, within each disclosure category, monthly trading portfolios are formed between January 2001 and July 2007 if a 10b5-1 sales transaction is observed in the preceding calendar month.

Consistent with evidence presented in Figure 5, results indicate that more specific 10b5-1-plan disclosures are associated with more negative post-trade abnormal returns. That is, for the one month following insiders' transactions, post-trade abnormal returns are statistically more negative as disclosure becomes more specific.

Formal tests comparing portfolio returns indicate that one-month average post-trade abnormal returns are more negative for the limited-disclosure portfolio (−1.2% return) relative to the nondisclosure portfolio (−0.02% return),⁷⁹ for the specific-disclosure portfolio (−4.3% return) relative to the nondisclosure portfolio,⁸⁰ and for the specific-disclosure portfolio relative to the limited-disclosure portfolio.⁸¹ The results are similar for longer trading windows.

This analysis supports our hypothesis that voluntary disclosure may shield informed trades from legal scrutiny, as well as our theory about the trade-off between litigation prophylaxis and the costs of the termination option. In the next section, we explore some potential reasons for the source of insiders' information advantage.

77. Mark M. Carhart, *On Persistence in Mutual Fund Performance*, 52 J. FIN. 57 (1997); Eugene F. Fama & Kenneth R. French, *Common Risk Factors in the Returns on Stocks and Bonds*, 33 J. FIN. ECON. 3 (1993).

78. See Mark L. Mitchell & Erik Stafford, *Managerial Decisions and Long-Term Stock Price Performance*, 73 J. BUS. 287, 308–09 (2000). Specifically, if at least three firms are available to form a disclosure-month-portfolio, the following regression is estimated:

$$(R_{port} - R_f) = \beta_0 + \beta_1(R_m - R_f) + \beta_2SMB + \beta_3HML + \beta_4UMD + \mu$$

where: R_{port} is the equally-weighted monthly portfolio return; R_f is the one-month treasury bill rate; R_m is the value-weighted monthly market return; and SMB , HML , and UMD are the monthly small-minus-big, high-minus-low, and momentum factors that explain monthly stock returns.

79. −1.0%, t -statistic = −1.86.

80. −4.1%, t -statistic = −4.08.

81. −3.1%, t -statistic = −3.04.

D. EARNINGS AND PRICE-RELEVANT NEWS

To better understand what may underlie insiders' opportunistic trading, we examine the association between 10b5-1 transaction timing and forthcoming news events that reveal fundamental economic information about the firm (for example, earnings). Untabulated results suggest that the first sales transactions executed under both limited and specific disclosures are associated with a significant decline in earnings performance relative to market expectations.

We also find that specific disclosures are associated with subsequent negative news events that may not be impounded in short-term earnings. For example, approximately 25% of the specific-disclosure sample exhibits a single news event, not related to earnings, for which the three-day market-adjusted return falls between -10% and -75% , within an average 140 calendar days of disclosure. These news events include exchange-imposed stock trade suspension, drug trial failure, and announcement of the intent to acquire another firm. We also find that approximately 33% of the remaining specific-disclosure sample exhibit sustained returns declines (between -20% and -80%), for which there is no obvious associated information event, during the 180 calendar days that follow disclosure. Collectively, this evidence suggests that Rule 10b5-1 trades tend to be associated with fundamental firm economic shifts.

E. SENSITIVITY ANALYSIS

Disclosure choice could correlate with unobserved factors (for example, insiders' control over firm decisions or access to material information) that can influence observed post-trade returns patterns irrespective of disclosure. Accordingly, the possibility exists that we inappropriately attribute observed results to disclosure choice when, in fact, they evolve from an unobserved characteristic that is correlated with disclosure choice.

To investigate this possibility, we first assess whether average abnormal return estimates are sensitive to insiders' frequency of trade or rank (for example, high-level executives), with the expectation that returns could be more negative following higher trade frequency and higher-level executive transactions.⁸² Because insider trade frequency and rank are measured at the firm level, we conduct this analysis using a firm-level calendar-time regression.⁸³ We regress firm-level value-weighted market-adjusted monthly returns on the firm's book-to-market ratio, its prior return, its prior volatility, and industry-fixed effects. We also include the number of insiders' sale transactions during the preceding month and indicator variables that equal one if the firm's CEO or

82. We also assess whether the relation between average abnormal returns and disclosure specificity is stronger when insiders' trade frequency or rank is higher. In untabulated tests, coefficients of interactions between disclosure specificity and insider-trade frequency or rank are insignificant.

83. The firm-level estimation explicitly controls for differences in book-to-market ratios across firms, which has been shown to explain insiders' sales returns. Josef Lakonishok & Inmoo Lee, *Are Insider Trades Informative?*, 14 REV. FIN. STUD. 79, 102 (2001).

CFO traded in the prior month. Standard errors are adjusted through month clustering.⁸⁴

Untabulated results show that our results continue to indicate that abnormal trade returns increase in disclosure specificity after controlling for insider trade frequency and rank. Specifically, abnormal returns estimates for nondisclosure, limited-disclosure, and specific-disclosure firm months are -1.3% (t -statistic = -3.52), -2.2% (t -statistic = -4.65), and -4.3% (t -statistic = -3.30), respectively. Abnormal returns are statistically more negative for the limited-disclosure portfolio relative to the nondisclosure portfolio, for the specific-disclosure portfolio relative to the nondisclosure portfolio, and for the specific-disclosure portfolio relative to the limited-disclosure portfolio.

In addition, we investigate whether observed returns patterns (and differences across disclosure partitions) exist for insiders' trades during the twelve-month period ending a year prior to being identified as participating in a 10b5-1 plan. This is known as a placebo test, in that it runs the same analyses during a period in which there is no plan operating to see if the results are the same. If they are, then there are other factors, not plan participation, that are driving the results. If disclosure choice inadvertently proxies for an omitted characteristic (for example, insiders' ability to predict or influence future performance), then presumably patterns should be consistent through time. We do not observe any evidence of strategic selling behavior for insiders in any of the disclosure partitions, and fail to provide evidence of trade profitability differences across the disclosure partitions. This mitigates the likelihood that the observed patterns are induced by self-selection.

IV. POTENTIAL REFORMS

In this Part, we consider several possible reforms of Rule 10b5-1 in light of the evidence we have provided that it and firms' disclosure choices may enhance insiders' ability to profit from inside information. Specifically, we explore four potential reforms: increased disclosure, a no-termination option, mandatory adoption, and randomized trading.

We should note at the outset that a majority of trades made under Rule 10b5-1 plans that we observed appear to be uninformed, diversification trades. Stated differently, there are traders who appear to follow the letter and the spirit of the rule. This does not tell us, however, whether the rule is good or bad from a social welfare perspective, which would require some nontrivial estimation of unobservable costs and benefits. It seems clear, however, that the SEC would prefer to observe uninformed trade for all traders within the rule. If this is the case, then one option is for the SEC to do nothing and see if the market can self-police. This, to some degree, is happening with the publication of this data

84. Ian D. Gow et al., *Correcting for Cross-Sectional and Time-Series Dependence in Accounting Research*, 85 ACCT. REV. 483, 483–85 (2010).

to the key players, including legal advisors, directors' and officers' insurance (D&O), brokers, institutional investors, plaintiffs' lawyers, judges, and prosecutors.⁸⁵ Shareholders have already filed precatory proposals demanding changes to the use of these trading plans,⁸⁶ insurers have changed their policies to give discounts for firms that use trading plans wisely, defense lawyers have suggested ways of maximizing the legal prophylaxis of these plans, and the government has hinted that it is going to look more closely at these plans for potential abuse. Given this, firms and insiders are on notice that their usage of the rule is under scrutiny by monitors (that is, plaintiffs' lawyers, prosecutors, insurers, and, dare we say, academics) with incentives to force firms to internalize the costs of their trades.

Market-based reforms may be preferable because they are more apt to allow for flexibility. If the SEC mandates global (that is, inflexible) changes to the rule, changes may be suboptimal for some firms that face idiosyncratic labor markets which might drive the need for flexibility in compensation and trading. Allowing market participants to tailor their usage of the rule to firm-specific circumstances can help mitigate deadweight loss that might arise from reforms that will likely be over and underinclusive. This view is consistent with recent Supreme Court jurisprudence suggesting firm-authorized insider trading may be legal.⁸⁷

A. INCREASED DISCLOSURE

If the SEC feels compelled to alter the rule, one potentially obvious response would be for the SEC to reconsider the proposal it tabled that would have required firms to disclose the existence of a plan used by any executive through a Form 8-K disclosure. Disclosure sounds benign in the abstract—it is hard to oppose having more information about the use of plans—but the data we present suggest that disclosure (albeit voluntary) could have unintended consequences. Remember that the insiders least likely to be exploiting the rule appear to be the ones not making any disclosures of the existence of their plans. These insiders chose not to disclose for some reason, and therefore requiring them to

85. The authors have presented the work formally and informally to all of these groups, as well as the SEC.

86. See Stephen Taub, *AFSCME Takes New Swipes at Exec Pay*, CFO.COM (Jan. 11, 2008), <http://ww2.cfo.com/human-capital-careers/2008/01/afscme-takes-new-swipes-at-exec-pay/>.

87. See, e.g., *United States v. O'Hagan*, 521 U.S. 642, 655, 659 n.9 (1997) (noting that because, under a prevailing theory, insider trading requires misrepresentation and deception, firms may be able to authorize insiders to trade on inside information: "[T]he textual requirement of deception precludes §10 (b) liability when a person trading on the basis of nonpublic information has disclosed his trading plans to, or obtained authorization from, the principal—even though such conduct may affect the securities markets in the same manner as the conduct reached by the misappropriation theory."). This suggested end-run around insider-trading law has not been adopted by any firms because it would only undercut one of many insider-trading theories the government uses in these cases—nothing would prevent the government or private litigants from prevailing under a variety of other insider-trading theories, not the least of which is the incredibly broad and powerful mail fraud statute.

do so would likely increase their costs of using a plan. A disclosure mandate might deter insiders in this group from entering into plans on the margin, with the result of removing some of the benefits of the rule at least for them.

Depending on the amount and nature of required disclosures, the same might be true for insiders in the other disclosure partitions we identified above. For example, if insiders making limited disclosures are forced to make more detailed disclosures, the resulting impact on social welfare and efficiency are unknown. Increased disclosure obligations may deter some uninformed insiders from using plans, as in the case of the nondisclosing insiders mentioned above. For those insiders using limited disclosure as a litigation prophylactic with a low-cost termination option, increased disclosure might lower the value of the termination option and thus reduce the ability to strategically play the rule. But this depends on investor reaction to and judicial treatment of disclosures, among other things.

Requiring specific disclosure for all firms is likely to materially reduce the usage of the rule, perhaps in ways that are socially worse than the current practice. A potentially more sensible policy might be to advise courts to carefully evaluate the trading pattern evidence associated with the plan at the motion-to-dismiss phase. If the evidence suggests potential strategic use, the judge could ask, at that time, for specific disclosure of the plan terms that generated the strategic pattern of trade.

B. NO TERMINATION

Another potential reform would be to limit or completely eliminate the possibility of early termination of plans. Limiting termination might reduce the number of insiders (in the limited-disclosure group) using the rule, because it would embed greater risk in the plans, particularly of longer duration. Relatedly, it would also likely shorten the duration of most plans because longer plans would carry more risk without the termination option.

C. MANDATORY USAGE

A more radical proposal might be to make the rule mandatory for all covered insiders or the top five executives at every firm for all sales of equity.

At least two practical objections are possible. Such a proposal might disadvantage businesses subject to the requirement, say U.S.-based businesses, compared with those that are not. If true, this might provide incentives for firms to avoid the requirement by moving to locations or conditions where the rule does not apply.

Firms might also be tempted to switch to internally paid forms of compensation, like cash-settled equity in which cash payments are linked to increases in stock price, but do not require any individual to purchase or sell actual stock. This would impose higher costs to firms that have lower liquidity. The important point here is that a move requiring the use of 10b5-1 plans is likely to provide incentives for firms and individuals to evade it, and any effect on

compensation practices should be part of the calculation of a proposed reform's likely costs and benefits.

Another option would be to require all sales for insiders to be made inside of the plan. This is likely to be as contentious, but it is, or should be, less controversial. We have been told that some firms are already requiring this, likely because, according to lawyers that defend these cases, it makes the litigation prophylactic much more effective. This is supported, for example, by institutional investors, D&O insurers, and other corporate activists.

D. RANDOMIZE TRADING

An even more radical approach might be to abandon the rule entirely in exchange for an alternative true-diversification rule. Rule 10b5-1 currently operates on the notion that the insider surrenders control over the timing of her trades relative to information events relating to the firm. As we show, the rule, as implemented, does not get us there. One alternative, however, is that the SEC could require that all insider trades be contracted in advance, say on the first day of the year or the quarter, by simply telling the SEC or other third party (privately) how many shares the insider plans to sell or the total dollar amount the insider wants to diversify. The SEC or other party could then randomly assign trade execution to days throughout the time period. This would eliminate the possibility of opportunistic trading, but would give insiders the freedom to sell as needed for diversification or liquidity.

For example, say an insider indicates on January 1 a desire to sell 100,000 shares over the course of the year. An independent party could divide these shares into, say, 100 share blocks of 1,000 shares each, and then pick perhaps 10 random days throughout the year (perhaps spaced with minimum increments between trades).⁸⁸

In this way, the insider would not know anything about the timing of the trades, and thus could not plan either the sale dates or corporate policy or company release of information to profit from any inside information.

This rule may be politically difficult to enact, but it would achieve what we perceive to be the SEC's goal of uninformed trade much more effectively.

CONCLUSION

The existing literature in law, finance, and accounting suggests disclosure reduces information asymmetries. This Article challenges the conventional

88. There are, of course, innumerable alternatives. For example, the total number of trading days for these plans could equal the number of trading days in the year, with the insider agreeing to sell 1/250 of these shares each trading day. In addition, the function of randomization could be preformed by stock exchanges, brokers, or other third parties. In fact, this option exists today because such a plan would satisfy the requirements of Rule 10b5-1, but to our knowledge no firm has adopted such a plan. This may speak to the perceived efficiency of such plans or to the extent of managerial power in firms. Whatever the case, it is likely that such a rule would be more likely to reduce the number of informed trades by insiders.

wisdom by examining how disclosure interacts with legal rules. Specifically, the rules of civil procedure provide more legal protection at the motion-to-dismiss phase of litigation when disclosure is public. In addition, the value of disclosure at this stage of litigation increases with the specificity of disclosure. We show that this characteristic of the legal rules can be used to enhance insiders' opportunistic trading under Rule 10b5-1.

We provide evidence that insider selling increases more and that insiders' sale transactions are associated with greater subsequent declines in fundamental economic and stock returns performance for disclosed plans, which suggests that disclosure is associated with opportunistic insider trading. Finally, we provide evidence that this trading behavior increases with disclosure specificity, suggesting that disclosure enhances insiders' strategic trading opportunities.

This evidence expands our understanding of the trade-offs relating to voluntary disclosure, litigation risk, and insider trading. In addition, this evidence potentially offers important insights to courts, the SEC, FINRA, and other regulators of securities markets. Because enhanced disclosure appears associated with more opportunistic trading by insiders, courts should consider more carefully whether public disclosure of a 10b5-1 trading plan, by itself, is sufficient to remove suspicions regarding scienter. Any other reforms, short of the radical (but we think sensible) ones we discuss briefly, may do more harm than good.